

## **Full Spectrum Color Projector**

### Abstract

An apparatus providing full spectrum electronic images includes a full-spectrum light source, a programmable diffraction grating to separate light from the source into its spectral components, a reflection system controllable on a pixel by pixel basis to modulate light output from the diffraction grating, and a scanning mirror to form an image from light modulated by the reflection system. A related method for displaying a full spectrum image includes providing full spectrum light, using a diffraction grating to separate the light into its spectral components, and for each pixel of the image, modulating the intensity of the spectral components to produce a light output characteristic of such pixel, and additionally using a scanning mirror arrangement to form the image.